



COMMONWEALTH of VIRGINIA

DEPARTMENT OF FORENSIC SCIENCE

CENTRAL LABORATORY
A Nationally Accredited Laboratory

700 NORTH 5TH STREET
RICHMOND, VIRGINIA 23219
(804) 786-6971

CERTIFICATE OF INSTRUMENT ACCURACY

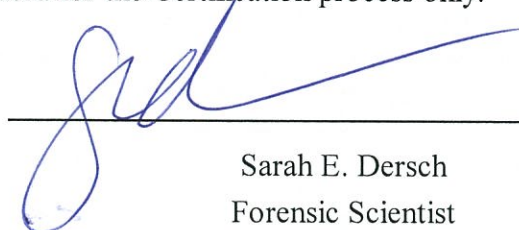
INSTRUMENT: Intox EC/IR II
SERIAL NUMBER: 010427
CERTIFICATION DATE: January 28, 2014
DATE RECERTIFICATION DUE: July 27, 2014

The above listed instrument was found to meet all requirements for accuracy and performance established by the Department of Forensic Science as required by §9.1-1101 (B)(3). Measurement traceability is established through the use of reference materials supplied by an ISO/IEC 17025:2005 accredited calibration laboratory.

Estimation of Uncertainty of Measurement:

0.020 ± 0.004 g/210 L	0.150 ± 0.007 g/210 L
0.080 ± 0.004 g/210 L	0.250 ± 0.007 g/210 L

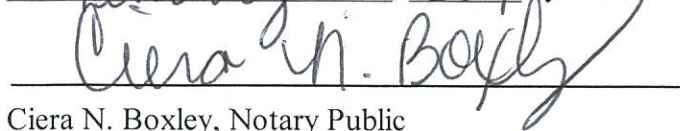
The Uncertainty of Measurement is reported at the 99.73% level of confidence and a coverage factor of $k=3$. The estimation of the Uncertainty of Measurement is calculated for the Certification process only.



Sarah E. Dersch
Forensic Scientist

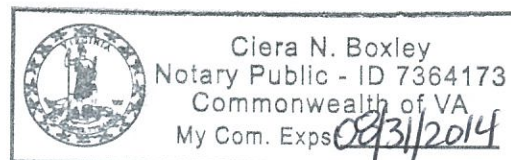
CITY OF RICHMOND
COMMONWEALTH OF VIRGINIA

The foregoing was acknowledged before me this 6th day of February, 2014 by Sarah E. Dersch



Ciera N. Boxley, Notary Public

My commission expires: August 31, 2014



msk

sed

**Department of Forensic Science
Breath Alcohol Section
Instrument Maintenance History
1/1/1990 To 2/5/2014**

Instrument Serial Number: 010427

As of 05-Feb-14

Maintenance Date	Certification Date	Technician Initials	Remarks
28-Jan-14	28-Jan-14	SED (24178)	CERTIFIED. REPLACED DRY GAS STANDARD.
13-Aug-13	13-Aug-13	DBH (21250)	FIRMWARE/SOFTWARE UPGRADE. REPLACED PRINTER. CALIBRATED AND CERTIFIED. REPLACED DRY GAS STANDARD.
02-Apr-13	02-Apr-13	DBH (21250)	FIRMWARE/SOFTWARE UPGRADE, CALIBRATED AND CERTIFIED.
26-Feb-13	26-Feb-13	TLN (25387)	CERTIFIED. REPLACED DRY GAS STANDARD.
05-Sep-12	05-Sep-12	HMS (18910)	CERTIFIED, REPLACED DRY GAS STANDARD.
24-Jul-12	22-Mar-12	SED (24178)	REPLACED DRY GAS STANDARD.
22-Mar-12	22-Mar-12	HMS (18910)	CERTIFIED
08-Feb-12	08-Feb-12	HMS (18910)	REPLACED PRINTER RIBBON, CERTIFIED
23-Nov-11	23-Nov-11	HMS (18910)	CALIBRATED BAROMETRIC PRESSURE SENSOR, CERTIFIED
27-Apr-11	27-Apr-11	RJP (22428)	REPLACED DRY GAS STANDARD. CERTIFIED.
08-Mar-11	16-Nov-10	RJP (22428)	REPLACED DRY GAS STANDARD.
13-Jan-11	16-Nov-10	RJP (22428)	REPLACED DRY GAS STANDARD.
16-Nov-10	16-Nov-10	RJP (22428)	CERTIFIED.
15-Oct-10	15-Oct-10	RJP (22428)	CALIBRATED AND CERTIFIED.
30-Sep-09	30-Sep-09	DBH (21250)	REPLACED TANK TOP LID, CALIBRATED AND CERTIFIED.
13-May-09	13-May-09	HMS (18910)	FIRMWARE/SOFTWARE UPGRADE, CALIBRATED AND CERTIFIED.
26-Nov-08	26-Nov-08	HMS (18910)	CERTIFIED.
24-Oct-08	24-Oct-08	NMJ (22392)	CALIBRATED, CERTIFIED AND ACCEPTED.

INTOX EC/IR II
Quality Assurance Worksheet

gld

Instrument Serial Number 010427 Worksheet Start Date 1/28/2014
Location Winchester ADC
Address 141 Fort Collier Rd, Winchester VA 22603
DFS Technician Sarah Dersch License No. 24178
☐ Laboratory ☒ On-Site

Site Specification: No detrimental environmental conditions exist. ☒

Instrument Barometer (mm HG) 753 Reference Barometer (mm HG) 751
Reference Barometer(RB)Serial # 009111 RB Calibration Due 5/23/2014

Measurement Assurance Check

Standard (sea level)	PA Target	minimum	maximum	Sample 1
0.300	0.297	0.288	0.305	0.297
Precision		sample min	sample max	Sample 2
0		0.297	0.297	0.297
				Sample 3
				0.297

Standard (sea level)	PA Target	minimum	maximum	Sample 1
0.100	0.099	0.096	0.102	0.098
Precision		sample min	sample max	Sample 2
± 0.001 2/5/14 <i>gld</i>		0.098	0.098 0.099 2/5/14 <i>gld</i>	0.098
				Sample 3
				0.098 0.099 2/5/14 <i>gld</i>

Dry gas standard Lot No. (with tank no.) AG332301-07

☒ Replaced dry gas standard (+O-ring)

☐ Installed at Location

☐ Removed to DFS-Central

Supplies

Mouthpieces 300

Certificates of Analysis 300

Operator Worksheet 250

Other:

Notes:

Instrument Serial Number

010427

Certification Date

1/28/2014

☐ Calibrated☒ Certified☒ Measurement Assurance Check☒ Instrument Test☐ Troubleshooting/Maintenance Worksheet Completed

(Successful completion denotes satisfactory condition of the item.)

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.246
0.250	0.248	0.240	0.255	Sample 2	0.246
Precision		sample min	sample max	Sample 3	0.246
0		0.246	0.246		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.147
0.150	0.149	0.144	0.153	Sample 2	0.147
Precision		sample min	sample max	Sample 3	0.147
0		0.147	0.147		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.078
0.080	0.079	0.076	0.082	Sample 2	0.079
Precision		sample min	sample max	Sample 3	0.079
0.001		0.078	0.079		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.019
0.020	0.020	0.017	0.023	Sample 2	0.019
Precision		sample min	sample max	Sample 3	0.019
0		0.019	0.019		

All measurements are in g/210L

Estimation of Uncertainty of Measurement and traceability records are located within the Breath Alcohol Section

DFS Technician

Date

Issuing Analyst

Date

Intox EC/IR-II: Certification

Ed

Department of Forensic Science

Serial Number: 010427 Test Number: 2397
Test Date: 01/28/2014 Test Time: 14:40 EST

Technician Initials: *SED*

Dry Gas Target: 0.248

Lot Number: 0651225015-02 Exp Date: 04/01/2014
Tank Pressure: 389 psi Barometric Pressure: 753 mmHg
System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	14:41
BLK	0.000	14:41
CHK	0.246	14:42
BLK	0.000	14:44
CHK	0.246	14:45
BLK	0.000	14:46
CHK	0.246	14:47
BLK	0.000	14:49

Success

Standard Value (at sea level): 0.250 g/210L

Certification Status: Continued

Intox EC/IR-II: Certification

fil

Department of Forensic Science

Serial Number: 010427 Test Number: 2398
Test Date: 01/28/2014 Test Time: 14:53 EST

Technician Initials: SED

Dry Gas Target: 0.248

Lot Number: 0651215014-04 Exp Date: 04/01/2014
Tank Pressure: 870 psi Barometric Pressure: 753 mmHg
System Check: Passed

Test	g/210L	Time
DIAG	Pass	14:53
BLK	0.000	14:54
CHK	0.147	14:55

Out of tolerance

Standard Value (at sea level): 0.250 g/210L

Certification Status: Failure

Typed in standard value as
0.250 g/210L instead of
0.150 g/210L sed 1/28/14

SED

Intox EC/IR-II: Certification

Department of Forensic Science

Serial Number: 010427 Test Number: 2399
Test Date: 01/28/2014 Test Time: 14:56 EST

Technician Initials: SED

Dry Gas Target: 0.149

Lot Number: 06512150I4-04 Exp Date: 04/01/2014
Tank Pressure: 870 psi Barometric Pressure: 753 mmHg
System Check: Passed

Test	g/210L	Time
DIAG	Pass	14:57
BLK	0.000	14:57
CHK	0.147	14:58
BLK	0.000	14:59
CHK	0.147	15:00
BLK	0.000	15:02
CHK	0.147	15:02
BLK	0.000	15:04

Success

Standard Value (at sea level): 0.150 g/210L

Certification Status: Continued

gal

Intox EC/IR-II: Certification

Department of Forensic Science

Serial Number: 010427 Test Number: 2400
Test Date: 01/28/2014 Test Time: 15:06 EST

Technician Initials: SED

Dry Gas Target: 0.079

Lot Number: 06512080I2-01 Exp Date: 04/01/2014
Tank Pressure: 987 psi Barometric Pressure: 753 mmHg
System Check: Passed

Test	g/210L	Time
DIAG	Pass	15:06
BLK	0.000	15:07
CHK	0.078	15:08
BLK	0.000	15:09
CHK	0.079	15:10
BLK	0.000	15:11
CHK	0.079	15:12
BLK	0.000	15:13

Success

Standard Value (at sea level): 0.080 g/210L

Certification Status: Continued

Intox EC/IR-II: Certification

sid

Department of Forensic Science

Serial Number: 010427 Test Number: 2401
Test Date: 01/28/2014 Test Time: 15:15 EST

Technician Initials: SED

Dry Gas Target: 0.020

Lot Number: 0651202011-07 Exp Date: 04/01/2014
Tank Pressure: 95 psi Barometric Pressure: 753 mmHg
System Check: Passed

Test	g/210L	Time
DIAG	Pass	15:15
BLK	0.000	15:16
CHK	0.019	15:17
BLK	0.000	15:18
CHK	0.019	15:19
BLK	0.000	15:20
CHK	0.019	15:21
BLK	0.000	15:22

Success

Standard Value (at sea level): 0.020 g/210L

Certification Status: Success

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Intox EC/IR-II: Accuracy Check

Department of Forensic Science

Serial Number: 010427 Test Number: 2402

Test Date: 01/28/2014 Test Time: 15:25 EST

Dry Gas Target: 0.297

Lot Number: AG321804-04 Exp Date: 08/06/2015

Tank Pressure: 433 psi Barometric Pressure: 753 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	15:26
CHK	0.297	15:27
BLK	0.000	15:29
CHK	0.297	15:30
BLK	0.000	15:31
CHK	0.297	15:33

Test Status: *Success*

Calibration CRC: 30FBE79A

Sid

Intox EC/IR-11: Accuracy Check

Department of Forensic Science

Serial Number: 010427 Test Number: 2403

Test Date: 01/28/2014 Test Time: 15:37 EST

Dry Gas Target: 0.099

Lot Number: AG332301-07 Exp Date: 11/19/2015

Tank Pressure: 1115 psi Barometric Pressure: 753 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	15:38
CHK	0.098	15:39
BLK	0.000	15:40
CHK	0.098	15:41
BLK	0.000	15:42
CHK	0.099	15:43

Test Status: *Success*

Calibration CRC: 30FBE79A




COMMONWEALTH OF VIRGINIA
DEPARTMENT OF FORENSIC SCIENCE

CERTIFICATE OF BLOOD ALCOHOL ANALYSIS
AS DETERMINED BY A CHEMICAL TEST OF THE ACCUSED'S BREATH

NAME OF ACCUSED INSTRUMENT, TEST,	NAME OF COURT DFS
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BREATH ANALYSIS

SAMPLE EXAMINED AND TEST CONDUCTED BY DERSCH, SARAH, E		AGENCY DFS Central Lab
DFS LICENSE NUMBER 24178	LICENSE EXPIRES 10/01/2014	DATE TEST CONDUCTED 01/28/2014
TEST EQUIPMENT NUMBER 010427		

RESULTS: TIME SAMPLE TAKEN 15:52 EST

SAMPLE'S ALCOHOL CONTENT 0.00 GRAMS PER 210 LITERS OF BREATH

ATTEST:

I CERTIFY THAT THE ABOVE IS AN ACCURATE RECORD OF THE TEST CONDUCTED; THAT THE TEST WAS CONDUCTED WITH THE TYPE OF EQUIPMENT AND IN ACCORDANCE WITH THE METHODS APPROVED BY THE DEPARTMENT OF FORENSIC SCIENCE; THAT THE TEST WAS CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S SPECIFICATIONS; THAT PRIOR TO ADMINISTRATION OF THE TEST THE ACCUSED WAS ADVISED OF HIS RIGHT TO OBSERVE THE PROCESS AND SEE THE BLOOD ALCOHOL READING ON THE EQUIPMENT USED TO PERFORM THE BREATH TEST, AND THAT I POSSESS A VALID LICENSE TO CONDUCT SUCH TEST, GIVEN UNDER MY HAND THIS _____ DAY OF _____, 20 _____.

BREATH TEST OPERATOR

☐ I HAVE RECEIVED A COPY OF THIS CERTIFICATE OF ANALYSIS _____
SUBJECT'S SIGNATURE

☐ SUBJECT REFUSED TO SIGN FOR COPY OF CERTIFICATE OF ANALYSIS _____
OPERATOR'S SIGNATURE

FOR COURT